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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|---------------------|
| 10/080,782 | 02/22/2002 | Matthew Eccleston | VMware 16 | 1171 |
| 7590 | 04/19/2006 | | EXAMINER | |
| Jeffrey Slusher 34825 Sultan-Startup Rd. Sultan, WA 98294 | | | | FRANKLIN, RICHARD B |
| | | ART UNIT | PAPER NUMBER | |
| | | 2181 | | |

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|--|
| | 10/080,782 | ECCLESTON ET AL. | |
| Examiner | Art Unit | | |
| Richard Franklin | 2181 | | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 February 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-24 and 27-34 is/are allowed.

6) Claim(s) 25 and 26 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 22 February 2002 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. ____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

[Handwritten signature]
FRITZ REEMING
PRIMARY EXAMINER
GROUP 2100 4/14/2006
AU 1181

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: ____ .

DETAILED ACTION

1. Claims 1 – 34 have been examined.

Drawings

2. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 26 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim recites a system in the preamble, but the limitations of the claim recite functional limitations and a method. The statutory class that the claim belongs to is not clear.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. As per claim 25, the claim recites the limitation "the data set is **assumed** to be transferred as a series of packets..." (emphasis added). The term "assumed" makes the claim indefinite because it is not clear if the data set is actually transferred as a series of packets or not.

The Examiner has interpreted the limitation to limit the data set to be transferred as a series of packets.

6. Claim 25 recites the limitation "the channel" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The Examiner has interpreted the limitation to recite "a channel."

7. As per claim 25, the claim recites "from the intermediate subsystem, **transferring the data set** in the first format to the transfer-executing subsystem **before completion** of the **transfer of packets** from the transfer-initiating subsystem" (emphasis added).

The "data set" is defined as "a series of packets, each of which may be smaller than the

data set itself" in the claim. Using this definition for "data set" and "packets," it is impossible for the above limitation to be performed. In order to transfer the data set (the series of packets) from the intermediate subsystem to the transfer-executing subsystem, all of the packets of the data set must be transferred from the transfer-initiating subsystem. Transferring the data set before the completion of the transfer of packets is impossible because the data set includes all the packets.

The Examiner has interpreted the above recited limitation to recite "from the intermediate subsystem, transferring some of the series of packets to the transfer-executing subsystem before completion of the transfer of all of the packets of the data set from the transfer-initiating subsystem." Packet transfer is started from the intermediate subsystem to the transfer-executing subsystem before all of the packets of the data set are received by the intermediate subsystem.

8. As per claim 26, the preamble of the claim indicates that the claim is directed to a system, but the claim recites functional limitations along with a method. The Examiner is not able to understand the metes and bounds of the claim because it is not clear if the claim is directed to a system or a method.

9. As per claim 26, the claim recites "**transferring the data set between the virtual machine monitor and the host interface as a batch before completion of the transfer of packets** from the virtual machine to the virtual machine monitor" (emphasis added). The "data set" is defined as "a series of packets" in the claim. Using this definition for

“data set” and “packets,” it is impossible for the above limitation to be performed. In order to transfer the data set (the series of packets) from the virtual machine monitor to the host interface, all of the packets of the data set must be transferred from the virtual machine monitor. Transferring the data set before the completion of the transfer of packets is impossible because the data set includes all the packets.

The Examiner has interpreted the above recited limitation to recite “transferring some of the series of packets between the virtual machine monitor and the host interface as a batch before completion of the transfer of all of the packets of the data set from the virtual machine to the virtual machine monitor.” Packet transfer is started from the intermediate subsystem to the transfer-executing subsystem before all of the packets of the data set are received by the intermediate subsystem.

10. As per claim 26, the claim recites the limitation “data set is **assumed** to be transferred as a series of packets” (emphasis added). The term “assumed” makes the claim indefinite because it is not clear if the data set is actually transferred as a series of packets or not.

The Examiner has interpreted the limitation to limit the data set to be transferred as a series of packets.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

*FWF
4/14/2006*
11. Claims 25 ~~and 26~~ ^{is} rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al. US Patent Application Publication No. 2002/0116565 (hereinafter Wang).

As per claim 25, Wang teaches a method of data transfer between an initiator (Wang; Figure 1A Item 24) and a target (Wang; Figure 1A Item 26) via an intermediate subsystem (Wang; Figure 1A Item 22) and a host interface (Wang; Figure 1A Item 28) wherein from the intermediate subsystem (Figure 1A Item 22), transferring a packet to the host interface before completion of the transfer of packets from the initiating subsystem (Figure 3A Item 56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. US Patent Application Publication No. 2002/0116565 (hereinafter Wang) in view of Applicants Admitted Prior Art (hereinafter AAPA).

As per claim 26, Wang teaches a system for transferring data between an initiator (Wang; Figure 1A Item 24) and a target (Wang; Figure 1A Item 26) via an intermediate subsystem (Wang; Figure 1A Item 22) and a host interface (Wang; Figure 1A Item 28) in which the data transfer between the initiator and the target comprises transferring the data set between the intermediate subsystem and the host interface as a batch (Figure 3A Items 46, 48, and 49) before completion of the transfer of packets from the initiator to the intermediate subsystem (Figure 3A Item 56).

Wang does not teach wherein the initiator is a virtual machine and the intermediate subsystem is a virtual machine monitor.

However, AAPA teaches the use of a virtual machine (AAPA; Figure 1 Item 500) and a virtual machine monitor (AAPA; Figure 1 Item 600) in a data transferring system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Wang to have included the use of a virtual machine and virtual machine monitor in place of the initiator and intermediate subsystem because virtual machines and virtual machine monitors are well known in the art as a software abstraction of an actual physical computer system (AAPA; "Description of the Related Art" Page 6 Lines 17 – 18).

Allowable Subject Matter

13. Claims 1 – 24 and 27 – 34 are allowed.
14. The following is a statement of reasons for the indication of allowable subject matter: Independent claims 1 – 24 and 27 – 34 are allowable over the cited prior art

because the prior art of record does not teach or suggest alone or in combination a method or system for transferring a data set between a transfer-initiating subsystem and a target via an intermediate subsystem, a transfer-executing subsystem, and a channel, comprising within the intermediate subsystem, receiving a first one of the packets from a transfer-initiating subsystem, signaling to the transfer-initiating subsystem that the transfer of the first packet is still pending, so that the transfer-initiating subsystem at least temporarily delays submission of subsequent packets to the intermediate subsystem; issuing to the transfer-executing subsystem a transfer request and identifying for the transfer-executing subsystem the data set to be transferred, whereupon the transfer-executing subsystem attempts transfer of the data set; upon sensing a completion signal from the transfer-executing subsystem indicating completed transfer of the data set, signaling to the transfer-initiating subsystem completed transfer of the first packet; receiving subsequent packets from the transfer-initiating subsystem and, for each, signaling to the transfer-initiating subsystem completed transfer of each subsequent packet, as required by independent claims 1, 15, 27, and 28, *in combination with the other recited claim limitations* (emphasis added). Cited prior art US Patent Application Publication No. 2002/0116565 teaches data transfer from a transfer-initiating subsystem to a target via an intermediate subsystem and a transfer executing subsystem, but does not teach the messaging and data transfer as recited in the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Franklin whose telephone number is (571) 272-0669. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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